Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A contact fabric using a heterostructure of metal/semiconductor nanorods, the contact fabric comprising:

semiconductor nanorods grown on a predetermined base material; and

metal deposited on ~~predetermined portions~~ one end of each of the semiconductor nanorods,

wherein there is a low contact resistance ohmic characteristic or a rectifying Schottky characteristic between the nanorods and the metal depending on characteristics of interfaces between the nanorods and the metal and depending on the difference between work functions.

2. (Currently Amended) The contact fabric of claim 1, being used as a Schottky contact fabric or an ohmic contact fabric in a Schottky diode, a transistor, an optical detecting device, a light-emitting device, a sensor device, a nano-system, an integrated circuit, ~~and~~ or an array circuit.

3. (Original) The contact fabric of claim 1, wherein the nanorods and the contact fabric have a diameter less than 500 nm.

4. (Original) The contact fabric of claim 1, wherein the semiconductor nanorods include at least one material selected from the group consisting of zinc oxide, titanium oxide, GaN, Si, InP, InAs, GaAs, and an alloy thereof.

5. (Original) The contact fabric of claim 2, wherein when the semiconductor nanorods are n-type semiconductors and form the Schottky contact fabric with the metal, the metal deposited on the semiconductor nanorods includes at least one material selected from the group consisting of Ni, Pt, Pd, Au, W, and silicide metals, including PtSi and NiSi, wherein each of the listed materials has a work function that is greater than the affinity of the semiconductor nanorods to electrons.

6. (Original) The contact fabric of claim 2, wherein when the semiconductor nanorods are n-type semiconductors and form the ohmic contact fabric with the metal, the metal directly deposited on the semiconductor nanorods includes at least one material selected from the group consisting of Ti, Al, and In, which have a smaller work function than the work function of the semiconductor nanorods.

7. (Original) The contact fabric of claim 6, wherein Au or Pt is deposited on the metal.

8. (Previously Presented) The contact fabric of claim 5, wherein thermal annealing is performed at a temperature of less than 1,000°C after the metal is deposited to improve the electrical characteristics of the contact fabric.

9. (Witihdrawn) A method of fabricating a contact fabric using a heterostructure of metal/semiconductor nanorods, the method comprising:

growing semiconductor nanorods on a predetermined base material vertically or in a direction; and

depositing a metal onto predetermined portions of the semiconductor nanorods using a sputtering method or a thermal or e-beam evaporation method,

wherein there is a low contact resistance ohmic characteristic or a rectifying Schottky characteristic between the nanorods and the metal depending on characteristics of interfaces between the nanorods and the metal and depending on the difference between work functions.

10. (Withdrawn) The method of claim 9, wherein the grown nanorods and the deposited contact fabric have a diameter less than 500 nm.

11. (Withdrawn) The method of claim 9, wherein the semiconductor nanorods include at least one material selected from the group consisting of zinc oxide, titanium oxide, GaN, Si, InP, InAs, GaAs, and an alloy thereof.

12. (Withdrawn) The method of claim 9, wherein when the semiconductor nanorods are n-type semiconductors and form a Schottky contact fabric with the metal, the metal deposited on the semiconductor nanorods includes at least one material selected from the group consisting of Ni, Pt, Pd, Au, W, and silicide metals, including PtSi and NiSi,

wherein each of the materials has a work function that is greater than the affinity of the semiconductor nanorods to electrons.

13. (Withdrawn) The method of claim 9, wherein when the semiconductor nanorods are n-type semiconductors and form an ohmic contact fabric with the metal, the metal directly deposited on the semiconductor nanorods includes at least one material selected from the group consisting of Ti, Al, and In, which have a smaller work function than the work function of the semiconductor nanorods.

14. (Withdrawn) The method of claim 13, further comprising depositing Au or Pt onto the metal.

15. (Withdrawn) The method of claim 12, further comprising performing thermal annealing at a temperature of less than 1,000°C after the metal is deposited to improve the electrical characteristics of the contact fabric.